

WHAT IS CLAIMED IS:

1. A method for configuring, coordinating, and implementing a plurality of protocol elements within an access terminal to allow the protocol elements to act in a cohesive manner to correctly emulate an expected communication interface with a corresponding group of protocols in a network protocol stack of a network, comprising the steps of:
 - (a) initializing a session configuration protocol;
 - (b) reading a status of a current session from a non-volatile memory;
 - (c) if said session configuration protocol determines during step (b) that configuration data in said non-volatile memory is to be used, then reading at least one session configuration variable from said non-volatile memory;
 - (d) if said session configuration protocol determines during step (b) that there are no configuration variables stored in said non-volatile memory, then assigning default values to said at least one session configuration variable;
 - (e) initializing at least one other protocol; and
 - (f) sending a configuration command from said session configuration protocol located within the access terminal to an answering protocol containing an attribute directly responsible for perfecting a need to change its existing status, said answering protocol also being located within the access terminal.
2. The method of claim 1, further comprising the steps of:
 - (g) if said answering protocol determines that configuration is necessary and accepts said configuration command, communicating acceptance from said answering protocol to said session configuration protocol; and
 - (h) if said answering protocol determines that no configuration is necessary and rejects said configuration command, terminating further processing.
3. The method of claim 2, further comprising the step of:
 - (i) if said answering protocol accepts said configuration command, sending a configuration complete indication from said answering protocol to said session configuration protocol.
4. The method of claim 3, further comprising the step of:
 - (j) sending a message to the network upon receiving a configuration complete indication from all protocols in the access terminal that accepted said configuration command.
5. The method of claim 3, wherein step (g) comprises the step of:

2 (i) sending an immediate value of true from said answering protocol to said
session configuration protocol upon acceptance of said configuration command.

6. The method of claim 3, wherein step (h) comprises the step of:

2 (i) sending an immediate value of false from said answering protocol to said
session configuration protocol upon rejection of said configuration command.

7. The method of claim 5, wherein step (i) occurs through the use of a
2 boolean return value.

8. The method of claim 3, further comprising the step of:

2 (j) if said answering protocol accepted said configuration command, sending a
failed protocol negotiation indication from said answering protocol to said session
4 configuration protocol upon expiration of a specified time period.

9. The method of claim 3, further comprising the step of:

2 (j) if said answering protocol accepted said configuration command, sending a
failed protocol negotiation indication from said answering protocol to a session
4 management protocol upon determining that an attribute identified in a response
message does not match an attribute identified in a request message.

10. The method of claim 3, further comprising the step of:

2 (j) if said answering protocol accepted said configuration command, sending
identification data corresponding to an offending attribute from said answering protocol
4 to a session management protocol.

11. The method of claim 3, wherein step (f) occurs after first sending a
2 configuration request message from said session configuration protocol to the network.

12. The method of claim 3, further comprising the step of:

2 (j) if said answering protocol accepted said configuration command,
automatically sending a failed protocol negotiation indication after a specified number
4 of attempts to configure said session by said answering protocol.

13. The method of claim 3, further comprising the steps of:

2 (j) sending a configuration request message from said answering protocol in said
access terminal to a corresponding peer in the network; and

4 (k) receiving a configuration response message at said answering protocol in
response to said configuration request message transmitted from said answering
6 protocol.

14. The method of claim 13, further comprising the step of:
2 (l) limiting the time period between said receiving and sending steps.

15. The method of claim 3, further comprising the step of:
2 (j) exiting an access terminal initiation stage upon sending said configuration
complete message from said session configuration protocol to its corresponding peer in
4 the network

16. The method of claim 10, further comprising the step of:
2 (l) repeating said sending and receiving steps a plurality of times.

17. A method for preventing entrapment within a session negotiation in an
2 access terminal, after detecting a lost traffic channel on a network during an access
terminal initiation state, comprising the steps of:

4 (a) receiving an indication denoting that a traffic channel was lost, said
indication being sent by a protocol group at a connection layer in a protocol stack on
6 said access terminal;

(b) maintaining information regarding which answering protocols in the access
8 terminal were in a process of communicating with the network; and

(c) resending a configuration command from a session management protocol to
10 said answering protocols that were in the process of communicating with said network.

18. The method of claim 17, further comprising the steps of:
2 (d) sending an immediate value of true from said answering protocols if said
answering protocols failed to communicate with said network due to said lost traffic
4 channel; and

(e) sending an immediate value of false from said answering protocols if said
6 answering protocols successfully communicated with said network despite said lost
traffic channel.

19. The method of claim 18, wherein step (b) further comprises maintaining a
2 list containing answering protocols that have responded to a session configuration
protocol.

20. The method of claim 18, further comprising the steps of:

2 (f) transmitting a configuration complete message from said session
configuration protocol to said network upon determining that all access terminal
4 protocols have rejected a configuration command or completed configuration; and

6 (g) receiving a configuration response message from the network after sending a
configuration request message to the network.

21. A method for reacquiring an interface connection between a network
2 and an access terminal, comprising the steps of:

4 (a) maintaining data indicating whether current data transmittal is a first
occurring data transmittal after the interface connection was reacquired;

6 (b) transmitting a configuration request message from a session configuration
protocol to a network peer of said session configuration protocol on the network if said
data indicates that said current data transmittal is said first occurring data transmittal;
8 and

10 (c) preventing the access terminal from waiting on the network by allowing said
access terminal to receive a configuration response message from said network peer of
said session configuration protocol on the network.

22. The method of claim 21, wherein step (a) comprises setting a boolean
2 flag to true if said current data transmittal is said first occurring data transmittal after the
interface connection was reacquired.

23. The method of claim 21, wherein step (c) comprises maintaining a timer
2 to track a time between transmitting said configuration command and receiving said
completed configuration indication.

24. The method of claim 21, wherein upon expiration of a specified time, the
2 access terminal returns to an inactive state.

25. A method for configuring, coordinating, and implementing a plurality of
2 protocol elements within an access terminal to allow the protocol elements to act in a
cohesive manner to correctly emulate an expected communication interface with a
4 corresponding group of protocols in a network protocol stack, comprising the steps of:

6 (a) transmitting a command to a protocol within the access terminal to thereby
direct the access terminal to change from an open state to an access terminal initiated
state; and

8 (b) exiting said access terminal initiated state upon receiving notice from all
protocols within the access terminal.

26. A computer program product comprising a computer usable medium
2 having control logic stored therein for causing a computer to configure, coordinate, and
implement a plurality of protocol elements within an access terminal to allow said
4 protocol elements to act in a cohesive manner to correctly emulate an expected
communication interface with a corresponding group of protocols in a network protocol
6 stack, said computer program logic comprising:

a first computer readable program code means for causing the computer to detect
8 a need to change an existing condition in the access terminal;

a second computer readable program code means for addressing said need by
10 sending a configuration command from a session configuration protocol located within
the access terminal, said configuration command being sent to an answering protocol
12 containing an attribute directly responsible for perfecting said change, said answering
protocol being located within the access terminal;

a third computer readable program code means for determining if said answering
14 protocol accepts or rejects said change;

a fourth computer readable program means for sending an immediate value of
16 true from said answering protocol and sending a future indication from said answering
protocol, said value being sent if said answering protocol accepted said change, said
18 indication comprising one of a failed protocol negotiation indication and a configuration
complete indication; and
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a fifth computer readable program means for sending a value of false from said
22 answering protocol and terminating further processing if said answering protocol rejects
said change.

27. An access terminal, in which configuration and coordination of a plurality
2 of protocols occurs to allow said protocols to act in a cohesive manner to correctly
emulate an expected communication interface with a corresponding group of protocols
4 in a network protocol stack, comprising:

means for causing the computer to detect a need to change an existing condition
6 in the access terminal;

means for addressing said need by sending a configuration command from a
8 session configuration protocol located within the access terminal, said configuration
command being sent to an answering protocol containing an attribute directly
10 responsible for perfecting said change, said answering protocol being located within the
access terminal; and

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